ACC.15
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A1647
JACC March 17, 2015
Volume 65, Issue 10S

Stable Ischemic Heart Disease

CARDIOVASCULAR EVENT RATES IN A HIGH-RISK MANAGED CARE POPULATION IN THE UNITED STATES

Poster Contributions
Poster Hall B1
Sunday, March 15, 2015, 9:45 a.m.-10:30 a.m.

Session Title: Traditional and Novel Risk Markers and Outcomes
Abstract Category: 26. Stable Ischemic Heart Disease: Clinical
Presentation Number: 1195-378

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Background: Healthcare policy for reducing cardiovascular (CV) event burden should be guided by current and generalizable data. The objective was to determine the CV event risk in US patients with established atherosclerotic CV disease (ASCVD) and/or diabetes mellitus.

Methods: The MarketScan Research Database was used for this analysis. Inclusion criteria included a valid low-density lipoprotein cholesterol (LDL-C) measurement in 2009, age ≥20 years and evidence of CV disease and/or diabetes prior to the LDL-C measurement date (i.e. the index date). Both treated (with lipid-lowering therapy) and untreated patients were assigned to mutually-exclusive categories in the following order: ACS ≤12 months; MI >12 months; other CHD; ischemic stroke; PAD; and diabetes mellitus. Time to the composite endpoint of MI, unstable angina, coronary revascularization, ischemic stroke or CV death (estimated as 60% of all-cause death based on published sources) was calculated. Kaplan-Meier plots with log-rank tests were used.

Results: Inclusion criteria were met by 15,772 with ASCVD and 21,218 patients with only diabetes. Median (Q1-Q3) age was 59 (52-64) years, median (Q1-Q3) LDL-C was 88 (70-111) mg/dL, and 61% were male. Event rates are reported in the Table.

	Kaplan-Meier CV Event Rates				
	Diabetes (N=5,041)		No Diabetes (N=10,731)		p-value
	Cohort Frequency	One-year Event Rate [95% CI]	Cohort Frequency	One-year Event Rate [95% CI]	
ACS 0-12 mo. prior to index	7.4%	22.0% [18.5%, 26.1%]	6.7%	18.3%[15.8%, 21.2%]	0.0206
MI >12 mo. prior to index	13.9%	14.9%[12.6%, 17.5%]	13.1%	12.7%[11.1%, 14.4%]	<0.001
Other CHD	57.4%	7.4%[6.6%, 8.3%]	60.3%	4.2%[3.7%, 4.7%]	<0.001
Ischemic Stroke	7.0%	6.4%[4.4%, 9.3%]	8.2%	4.3%[3.2%, 5.8%]	0.1002
PAD	14.3%	5.7%[4.3%, 7.3%]	11.8%	4.2%[3.4%, 5.3%]	<0.001
The one-year event rate for diabetics without ASCVD (N=21,218) was 1.5% (95% CI: 1.4%, 1.7%)					
ACS, acute coronary syndrome; CHD, coronary heart disease; MI, myocardial infarction; PAD, peripheral arterial disease					

Conclusion: Despite treatment, these data suggest CV event rates continue to remain high in the US for patients with ASCVD. The presence of diabetes mellitus is associated with higher event rates in ASCVD.